

A vertical strip on the left side of the slide shows a topographic map of the Pohatcong Creek Watershed. It features contour lines, a creek network, and a yellow line indicating a specific path or boundary.

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Stream Assessment Monitoring System

A diagram showing a horizontal grey bar representing a stream. A white circle is at the left end, with a white arrow pointing right along the bar. A smaller white arrow points diagonally down and to the right from the circle.

SAMS

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SAMS – Origin of Data

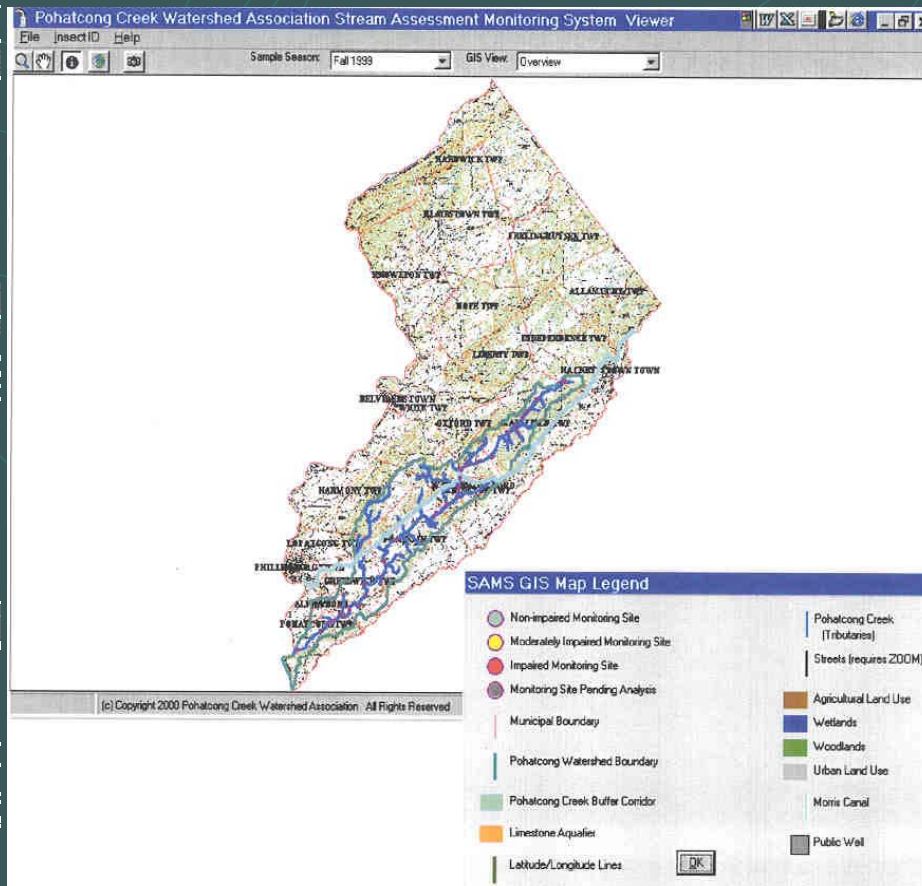


- The reason for a data management system: the intrepid 'Water Steward', the heart & soul of the data collection process.

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SAMS – Overview:

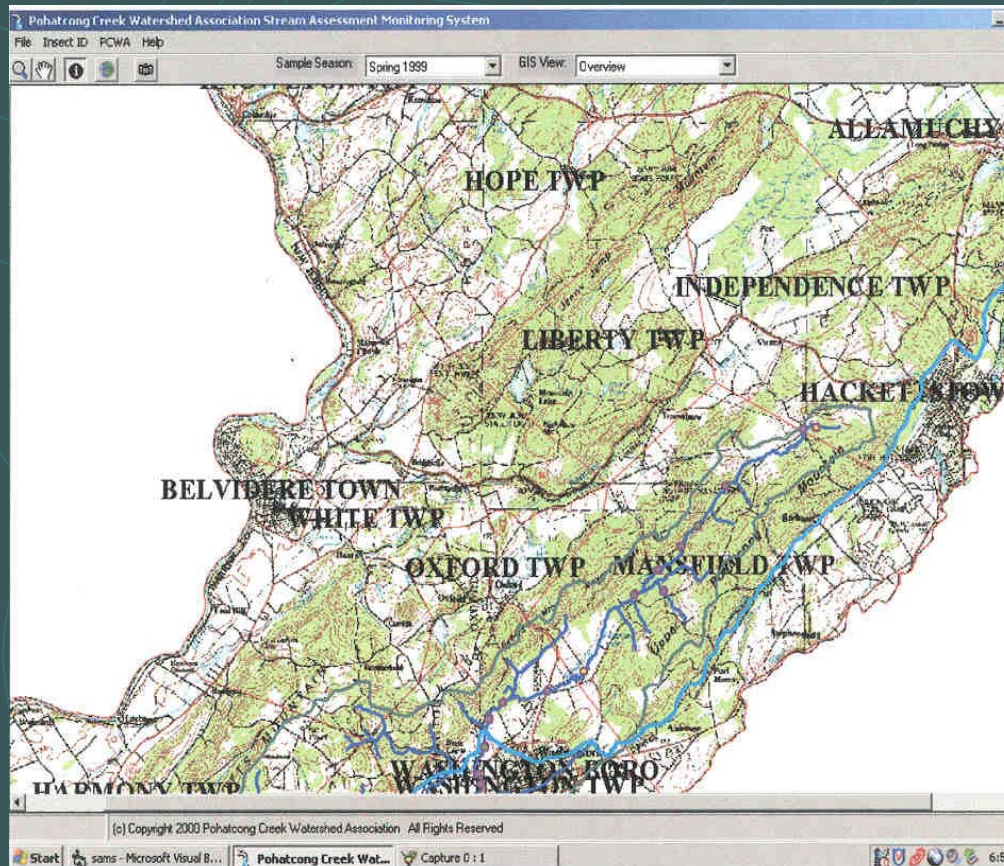
- Interactive GIS and data management system.
- Produces graphical displays of RBIS scores vs. various GIS themes.
- Designed in two formats: read only or data entry modes.



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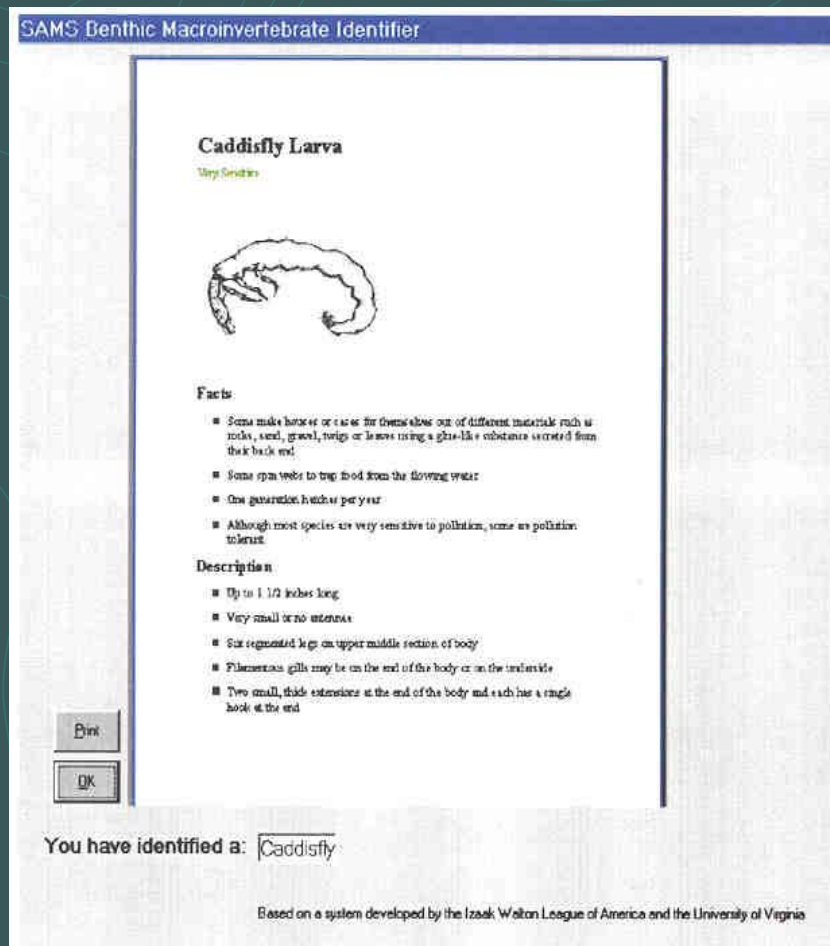
SAMS – Features: GIS Themes

- Warren County Map
- Topography
- Land Use
- Riparian Corridor
- Aerial Photography
- Geology –
Limestone aquifer
- Longitude & Latitude



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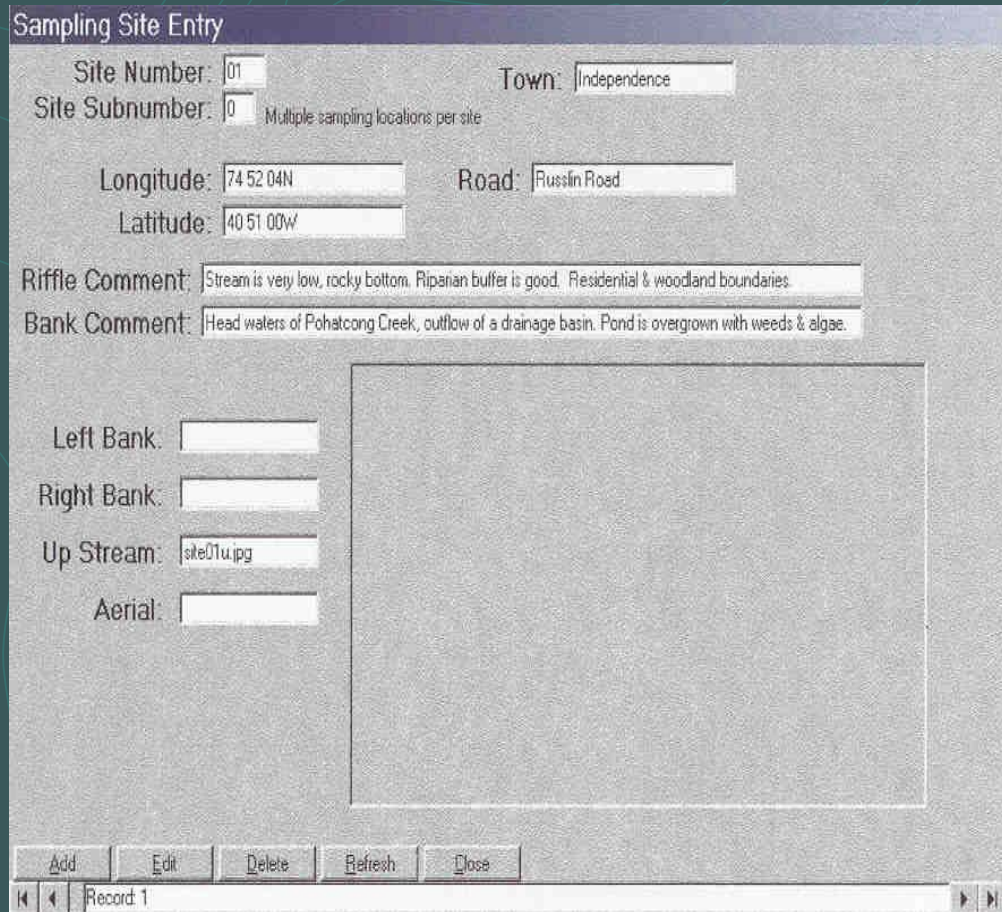
SAMS – Features: Bug Identifier



- Interactive utility for the identification of benthic macro invertebrates.
- Critter types are ascertained through a series of yes and no questions.
- Final display contains a picture, pertinent facts, and a physical description.

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SAMS – Features: Site Entry



The screenshot shows a web-based form titled "Sampling Site Entry". The form contains several input fields and text areas. At the top, there are fields for "Site Number" (containing "01") and "Town" (containing "Independence"). Below these are "Site Subnumber" (containing "0") with a note "Multiple sampling locations per site", "Longitude" (containing "74 52 04N"), and "Latitude" (containing "40 51 00W"). There is a "Road" field containing "Russlin Road". Two text areas for comments are present: "Riffle Comment" with the text "Stream is very low, rocky bottom. Riparian buffer is good. Residential & woodland boundaries." and "Bank Comment" with the text "Head waters of Pohatcong Creek, outflow of a drainage basin. Pond is overgrown with weeds & algae." Below the comments are four input fields: "Left Bank", "Right Bank", "Up Stream" (containing "site01u.jpg"), and "Aerial". A large empty rectangular box is positioned to the right of these fields. At the bottom of the form are five buttons: "Add", "Edit", "Delete", "Refresh", and "Close". A status bar at the very bottom indicates "Record 1".

Sampling Site Entry

Site Number: 01 Town: Independence

Site Subnumber: 0 Multiple sampling locations per site

Longitude: 74 52 04N Road: Russlin Road

Latitude: 40 51 00W

Riffle Comment: Stream is very low, rocky bottom. Riparian buffer is good. Residential & woodland boundaries.

Bank Comment: Head waters of Pohatcong Creek, outflow of a drainage basin. Pond is overgrown with weeds & algae.

Left Bank:

Right Bank:

Up Stream: site01u.jpg

Aerial:

Add Edit Delete Refresh Close

Record 1

- Assignment of sampling site numbers and descriptions.
- Longitude, latitude, town, road, and stream and bank conditions can be defined.
- Various photographic views can be stored.

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SAMS – Features: BMI Entry

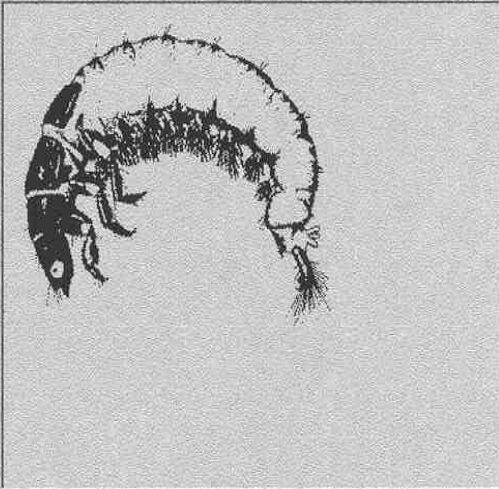
Benthic Macroinvertebrate Entry

Order: Family:

Standard Name:

Common Name:

FTV: EPT: ☒ BMI Image Filename:



- Utilized to build the database on critters.
- Listed by Order & Family with associated common names.
- Associated family tolerance values and images.

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SAMS – Features: RBIS Data Entry

RBIS Monitoring Data Entry Form

Monitoring Site: 04-0 Mansfield Valley Road

Sample Season: Spring 1999

Sample Site Information

Water Temperature: 56 Flow Velocity: 1.06 Clarity: 0

Dissolved Oxygen: 0 PH: 0 Nitrogen: 0

Sample Type:

Sample Length: 0 Sample Date: 06/20/1999 Sample Time (24HR): 12:00

PCWA Sampler #1: Donna B. PCWA Sampler #3:

PCWA Sampler #2: Dawn A. PCWA Sampler #4:

BMI Data Entry

Family Summary

EPT	Order	Family	Common Name	Count	FTV	FBI	% of Sample
N	Coleoptera	Elmidae	Riffle Beetle	5	4	0.1853	4.6729
N	Coleoptera	Psephenidae	Water Penny	1	4	0.0374	0.9346
N	Diptera	Chironomidae	Midge	6	6	0.3364	5.6076

Order: Family: FTV: Count:

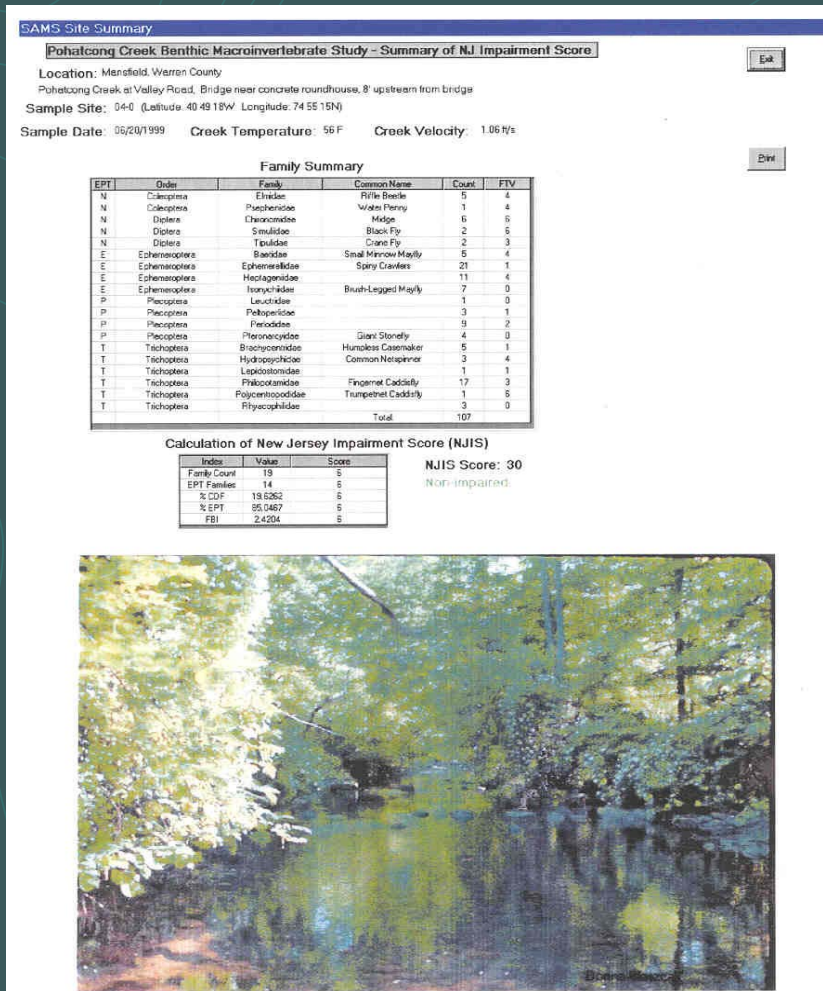
Biological Assessment: Non-impaired (30)

Total BMI Count: 107 Total Taxa: 19 % CDF: 19.6262 (Ephemeroellidae) E+P+T: 14 %EPT: 85.0467

- Site description.
- Allows for the entry of habitat and benthic assessment values.
- Season, date, time, and samplers can also be defined.
- Data can be entered singly or by import.

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SAMS – Features: Summary of NJIS



Printable report of site information/data.

Detailed analysis of sampling data.

Calculation of the N.J. Impairment Score.

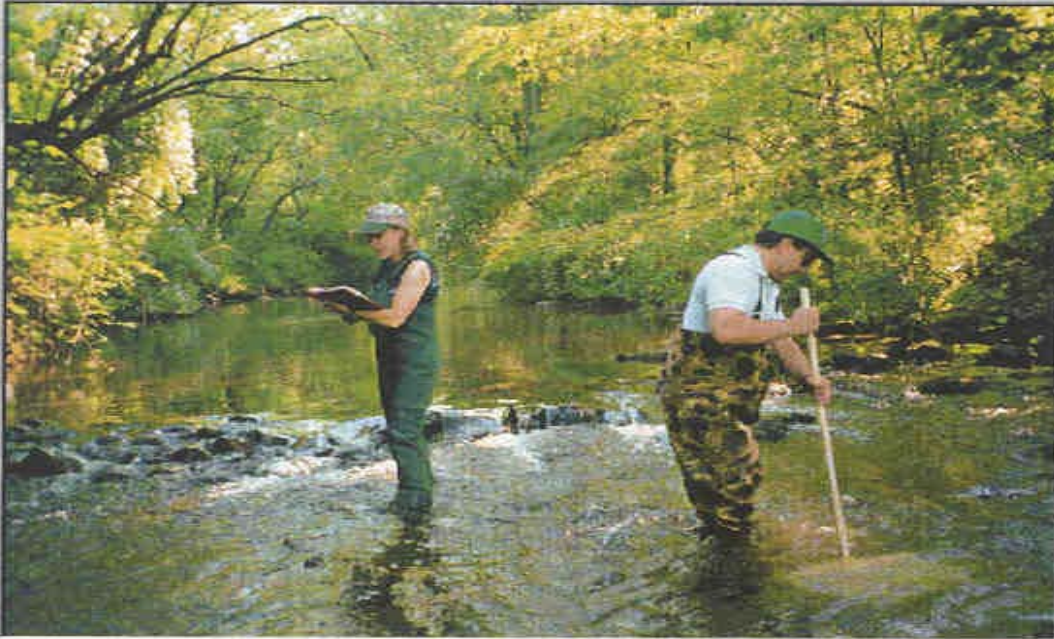
Photographic views of site.

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SAMS – Features: Virtual Tours

- Guided tours of 'Stream Monitoring', 'the Watershed', or 'Historic Areas'

Virtual Tour - Stream Monitoring



The Water Steward on the left is completing the sampling site assessment form. This information includes development activity, bank condition, Creek bottom condition, etc. The Water Steward on the right is collecting insects in the kick net. The bottom is disturbed and the net is pulled upstream to collect insects.

Slide 6 of 8

Exit

A vertical strip on the left side of the slide shows a topographic map of the Pohatcong Creek Watershed. It features contour lines, a creek, and some infrastructure like roads and bridges.

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SAMS – Technical Specifications

- Customized to Pohatcong Creek Watershed (ver. 1.0.7).
- Visual Basic (version 6.0)
- System Requirements: 133 MHz; CD drive; 32 MB RAM; 80 MB hard drive space; display resolution 1024 x 768; and Windows NT, 98, or 95
- For further information visit our website: www.pcwa.org
- Or e-mail: techsupport@pcwa.org

A vertical strip on the left side of the slide shows a topographic map of the Pohatcong Creek Watershed. It features contour lines, a network of streams, and a road. The map is oriented vertically, with the creek flowing downwards.

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SAMS – Sponsorship

- Map Objects – donated by Environmental Systems Research Institute (ESRI) Conservation Program
- Arc View – donated by the New Jersey Department of Environmental Protection (NJ DEP)
- Development grant money – provided by Lucent Technologies Foundation CARES grant program